

# Exposure and Medical Monitoring

WAC 296-855-300

## Section Contents

### YOUR RESPONSIBILITY:

**To monitor employee health and workplace exposures to ethylene oxide (EtO)**

### IMPORTANT:

- These sections apply when employee exposure monitoring results are either above the:
  - Action level (AL) of 0.5 parts per million (ppm)
  - or**
  - Short-term exposure limit (STEL) of 5 ppm.

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# Exposure and Medical Monitoring

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## Rule

WAC 296-855-30010

### Periodic exposure monitoring



#### Exemption:

- Periodic employee exposure monitoring isn't required if exposure monitoring results conducted to fulfill requirements in Exposure evaluation, WAC 296-855-20050, are below the action level (AL).

### You must

- Obtain employee exposure monitoring results according to the frequency specified in Table 2, Periodic Exposure Evaluation Frequencies.



#### Note:

- If you documented that one work shift consistently has higher exposure monitoring results than another for a particular operation, then you may limit sample collection to the work shift with higher exposures and use those results to represent all employees performing the operation on other shifts.

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### Periodic Exposure Monitoring (Continued)

**Table 2**  
**Periodic Exposure Evaluation Frequencies**

<b>If employee exposure monitoring results</b>	<b>Then</b>
Are between the: <ul style="list-style-type: none"><li>– Action level (AL) of 0.5 parts per million (ppm)</li></ul> <b>and</b> <ul style="list-style-type: none"><li>– TWA<sub>8</sub> of 1 ppm</li></ul>	Conduct additional exposure monitoring at least every 6 months
Are above the TWA <sub>8</sub> <b>or</b> Above the STEL	Conduct additional exposure monitoring at least every 3 months
Have been obtained at least every 3 months <b>and</b> Have 2 consecutive monitoring results, taken at least 7 days apart, showing 8-hour employee exposure monitoring results that have dropped below the TWA <sub>8</sub> , but remain at or above the AL	You may <b>decrease</b> your evaluation frequency for the TWA <sub>8</sub> to every 6 months
Have 2 consecutive evaluations, taken at least 7 days apart, showing 8-hour employee exposure monitoring results that have dropped below the AL and STEL	You may <b>stop</b> periodic exposure evaluations



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### Medical evaluations

#### IMPORTANT:

- Medical evaluations meeting all requirements of this section will fulfill the medical evaluation requirement found in another chapter, Respirators, Chapter 296-842 WAC.
- Employees who wear respirators need to be medically evaluated to make sure the respirator won't harm them, before they are assigned work in areas requiring respirators.

#### You must

- Make medical evaluations available to current employees:
  - Who have been, are, or may be exposed above the action level (AL) for at least 30 days in any 12-month period.
  - Exposed to EtO during an emergency situation.
  - Wanting medical advice on EtO exposure and reproductive health.
  - Whenever the employee develops signs and symptoms commonly associated with ethylene oxide.
  - At no cost including travel costs and wages associated with any time spent obtaining the medical evaluation.
  - At reasonable times and places.

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### Medical Evaluations (Continued)

#### You must

- Complete Steps 1 through 4 of the medical evaluation process at the following times:
  - Initially, when employees are assigned to work in an area where exposure monitoring results are, or will likely be, above the action level (AL) for at least 30 days in a 12-month period.
  - Every 12-months for employees exposed above the AL for at least 30 days in the preceding year unless the examining physician determines that they should be provided more frequently.
  - When employment with exposure ends, if the employee has not had an evaluation within the 6-month period before exposure ends.



#### Note:

- Employees who decline to receive medical examination and testing to monitor for health effects caused by EtO aren't excluded from receiving a separate medical evaluation for respirator use.
- If employers discourage participation in medical monitoring for health effects caused by EtO, or in any way interfere with an employee's decision to continue with this program, this interference may represent unlawful discrimination under RCW 49.17.160, Discrimination against employee filing complaint, instituting proceedings, or testifying prohibited--Procedure--Remedy.



#### Helpful tool:

##### Declination form for Nonemergency Related Medical Evaluations

- You may use this optional form to document employee decisions to decline participation in the medical evaluation process for exposure to ethylene oxide (EtO). To see this form, go to the resources section within this chapter.

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## Rule

WAC 296-855-30030

### Medical Evaluations (Continued)

#### MEDICAL EVALUATION PROCESS

**Step 1:** Select an appropriate licensed health care professional (LHCP) who will conduct or supervise examinations and procedures.

- If the LHCP isn't a licensed physician, make sure individuals who conduct pulmonary function tests have completed a training course in spirometry sponsored by an appropriate governmental, academic, or professional institution.

**Step 2:** Make sure the LHCP receives all of the following information before the medical evaluation is performed:

- A copy of:
  - This chapter
  - The following information found in the General Occupational Health Standards, Chapter 296-62 WAC:
    - The Substance Safety Data Sheet, WAC 296-62-07383(1) Appendix A.
    - The Substance Technical Guidelines, WAC 296-62-07385(2) Appendix B.
    - Medical Surveillance Guidelines, WAC 296-62-07387(3) Appendix C.
- A description of the duties of the employee being evaluated and how these duties relate to EtO exposure.
- The anticipated or representative exposure monitoring results for the employee being evaluated.
- A description of the personal protective equipment (PPE) and respirators each employee being evaluated uses or will use.

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### Medical Evaluations (Continued)

- Information from previous employment-related examinations when this information isn't available to the examining LHCP.
- Instructions that the written opinions the LHCP provides you be limited to the following information:
  - Whether or not medical conditions were found that would increase the employee's risk for impairment from exposure to EtO.
  - Any recommended limitations for EtO exposure and use of respirators or other PPE.
  - A statement that the employee has been informed of medical results and medical conditions caused by EtO exposure requiring further examination or treatment.

**Step 3:** Make medical evaluations available to the employee. Make sure they include the content listed in Table 3, Content of Medical Evaluations.

**Step 4:** Obtain the LHCP's written opinion for the employee's medical evaluation and make sure the employee receives a copy within 5 business days after you receive the written opinion.

- Make sure the written opinion is limited to the information specified for written opinions in Step 2.



**Note:**

- If the written opinion contains specific findings or diagnoses unrelated to occupational exposure, send it back and obtain a revised version without the additional information.

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## Rule

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### Medical Evaluations (Continued)

**Table 3**  
**Content of Medical Evaluations**

When conducting	Include
An initial and annual evaluation	<ul style="list-style-type: none"><li>• A work history and medical history that includes emphasis on<ul style="list-style-type: none"><li>– Pulmonary, hematological, neurological, reproductive systems</li></ul><b>and</b><ul style="list-style-type: none"><li>– The eyes and skin</li></ul></li><li>• A physical examination that includes emphasis on:<ul style="list-style-type: none"><li>– Pulmonary, hematological, neurological, reproductive systems</li></ul><b>and</b><ul style="list-style-type: none"><li>– The skin and eyes</li></ul></li><li>• A complete blood count including a:<ul style="list-style-type: none"><li>– White cell count with differential</li><li>– Red cell count</li><li>– Hematocrit</li><li>– Hemoglobin</li></ul></li><li>• Additional examinations the licensed health care professional (LHCP) believes appropriate based on the employee's exposure to ethylene oxide (EtO) or respirator use</li><li>• Additional testing<ul style="list-style-type: none"><li>– Pregnancy test, and laboratory evaluation for fertility if requested by employee and approved by evaluating LHCP</li></ul></li></ul>

**-Continued-**





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### Medical Evaluations (Continued)

**Table 3**  
**Content of Medical Evaluations-Continued**

When conducting	Include
Evaluations due to termination of employment	<ul style="list-style-type: none"><li>• The same contents as specified for initial and annual evaluations</li></ul>
Evaluations due to reassignment to an area where EtO exposure is below the AL	<ul style="list-style-type: none"><li>• The same contents as specified for initial and annual evaluations</li><li>• As determined by the LHCP</li></ul>
Evaluations due to exposure during an emergency	<ul style="list-style-type: none"><li>• The same contents as specified for initial and annual evaluations</li></ul>
Evaluations triggered by employee signs and symptoms commonly associated with overexposure to EtO or a request for reproductive advice	<ul style="list-style-type: none"><li>• The content of medical examinations and consultations will be determined by the examining LHCP<ul style="list-style-type: none"><li>– Pregnancy test, and laboratory evaluation for fertility if requested by employee and approved by evaluating LHCP</li></ul></li></ul>
Evaluations determined necessary by LHCP for exposed employee	<ul style="list-style-type: none"><li>• The content of medical examinations and consultations will be determined by the examining LHCP</li></ul>



# Exposure and Medical Monitoring

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## Rule

WAC 296-855-30080

### Medical records

#### IMPORTANT:

- This section applies when a medical evaluation is performed, or any time a medical record is created for an employee exposed to ethylene oxide (EtO).

#### You must

- Establish and maintain complete and accurate medical records for each employee receiving a medical evaluation for EtO and make sure the records include all the following:
  - The employee's name and unique identifier
  - Any employee medical complaints related to EtO
  - A description of the employee's duties
  - A copy of the licensed health care professional's (LHCP's) written opinions
  - The anticipated or representative employee exposure monitoring results provided to the LHCP for the employee
  - A copy of the information required in Step 2 of the medical evaluation process, found in WAC 296-855-30030, except the copy of this chapter and the appendices.
- Maintain medical records for the duration of employment plus 30 years.



#### Note:

- Your medical provider may keep these records for you. Other medical records, such as the employee's medical history or X-rays, need to be kept as confidential records by the medical provider.



#### Reference:

- For additional requirements that apply to employee exposure records including access and transfer requirements, go to, Employee medical and exposure records, chapter 296-802 WAC.